

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-7. (canceled)

8. (currently amended) A computer readable medium encoded with a computer program for executing a method for searching for an input symbol string among a set of symbol strings, comprising:

creating a trie data structure of symbol strings, wherein the symbol strings are grouped into branches in such a manner that the symbol strings beginning with the same symbols belong to the same branch, and the symbol strings in the same branch divide into new branches at the symbols, from which onwards the symbols strings differ from each other,

receiving an input formed of an input symbol string, proceeding from the starting point of the trie data structure along a branch to a calculation point indicated by the next symbol,

calculating distances at the calculation point between a sample symbol string formed by the symbols of the calculation point of the branch in question and the calculation points preceding it and the input symbol string by comparing these in alternative ways,

calculating at the calculation point also the smallest possible length difference corresponding to each distance that indicates how much the length of the remaining part of the input symbol string not examined in the distance calculation differs from the lengths remaining in the symbols strings passing through the calculation point, and calculating on the basis of each distance and corresponding length difference a reference value, selecting repeatedly the next branch to follow to the calculation point indicated by the next symbol, at which said calculation is repeated for the new calculation point, said selection of the next branch being performed in such a manner that next the routine proceeds from the calculation point, from which the lowest reference value has been obtained as result,

after the calculation has terminated, selecting one or more symbol strings having the shortest distance to the input symbol string on the basis of the performed calculations, and using the selected symbol string(s) to produce a response.

9. (currently amended) A computer readable medium encoded with a computer program for executing the method as claimed in claim 8, further comprising:

comparing the distance of the symbol string or strings used to produce the response and that of the input symbol string with a predefined maximum distance, and

changing the produced response to indicate that the input symbol string was not found if the distance exceeds the maximum distance.

10. (currently amended) A computer readable medium encoded with a computer program for executing the method as claimed in claim 8, further comprising:

when selecting the branch, comparing said lowest reference value with the predefined maximum distance, and

terminating the calculation if the lowest reference value exceeds the maximum distance.

11. (currently amended) A computer readable medium encoded with a computer program for executing the method as claimed in claim 8, further comprising:

when selecting the branch, checking whether calculation is already done for the last calculation point on one of the branches, and

terminating the calculation, if it turns out that for the last calculation point of one of the branches a reference value has been obtained that is lower than the reference values obtained for all the other calculation points.

12-13. (cancelled)

14. (currently amended) A method as claimed in claim 9, further comprising:

when selecting the branch, comparing said lowest reference value with the predefined maximum distance, and

terminating the calculation if the lowest reference value exceeds the maximum distance.

15. (currently amended) An apparatus loadable with a computer readable medium encoded with a computer program for searching for a symbol string among a set of symbol strings, the apparatus comprising:

means for creating a trie data structure of symbols strings by grouping the symbol strings into branches in such a manner that the symbol strings starting with the same symbols belong to the same branch, and the symbols strings in the same branch divide into new branches at the symbols, from which onwards the symbol strings differ from each other,

an input for receiving an input symbol string,

calculation means for calculating distances between a sample symbol string formed by the symbols of the calculation point and the calculation points preceding it in the examined branch and the input symbol string by comparing these in alternative ways, and for calculating at the calculation points also the smallest possible length difference corresponding to

each distance that indicates how much the length of the remaining part of the input symbol string not examined in the distance calculation differs from the lengths remaining in the symbols strings passing through the calculation point, and calculating on the basis of each distance and corresponding length difference a reference value,

selection means that repeatedly select the next branch to follow to the calculation point indicated by the next symbol, at which said calculation is repeated for the new calculation point, said selection means carrying out the branch selection in such a manner that next the routine proceeds from the calculation point, from which the lowest reference value has been obtained as result,

selection means that, after the calculation is terminated, select one or more symbol strings with the shortest distance to the input on the basis of the calculations,

response production means that produce a response by using the selected symbol string(s), and

an output for feeding the response onward.

16. (new) An apparatus including at least one circuit for searching for a symbol string among a set of symbol strings, the apparatus comprising:

means for creating a trie data structure of symbols strings by grouping the symbol strings into branches in such a

manner that the symbol strings starting with the same symbols belong to the same branch, and the symbols strings in the same branch divide into new branches at the symbols, from which onwards the symbol strings differ from each other,

an input for receiving an input symbol string,

calculation means for calculating distances between a sample symbol string formed by the symbols of the calculation point and the calculation points preceding it in the examined branch and the input symbol string by comparing these in alternative ways, and for calculating at the calculation points also the smallest possible length difference corresponding to each distance that indicates how much the length of the remaining part of the input symbol string not examined in the distance calculation differs from the lengths remaining in the symbols strings passing through the calculation point, and calculating on the basis of each distance and corresponding length difference a reference value,

selection means that repeatedly select the next branch to follow to the calculation point indicated by the next symbol, at which said calculation is repeated for the new calculation point, said selection means carrying out the branch selection in such a manner that next the routine proceeds from the calculation point, from which the lowest reference value has been obtained as result,

selection means that, after the calculation is terminated, select one or more symbol strings with the shortest distance to the input on the basis of the calculations,

response production means that produce a response by using the selected symbol string(s), and

an output for feeding the response onward.